



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,219	09/10/2003	Andre Jeutter	2001P17947WOUS	5692

7590 04/09/2007  
SIEMENS CORPORATION  
INTELLECTUAL PROPERTY DEPT.  
170 WOOD AVENUE SOUTH  
ISELIN, NJ 08830

EXAMINER
----------

WONG, EDNA

ART UNIT	PAPER NUMBER
----------	--------------

1753

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/659,219

Applicant(s)

JEUTTER ET AL.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2, 2007 has been entered.

This is in response to the Amendment dated February 5, 2007. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Response to Arguments***

**Specification**

The disclosure has been objected to because of minor informalities.

The objection of the disclosure has been withdrawn in view of Applicants' amendment.

**Claim Objections**

Claims **10 and 16** have been objected to because of minor informalities.

The objection of claims 10 and 16 has been withdrawn in view of Applicants'

amendment.

Claim Rejections - 35 USC § 112

I. Claims **1-2 and 4-18** have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The rejection of claims 1-2 and 4-18 under 35 U.S.C. 112, first paragraph, is as applied in the Office Action dated December 5, 2006 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that the Examiner has not met the requirements of MPEP 2163.04. The Examiner has failed to establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed.

As explained in MPEP 2163(II)(2)&(3), the Examiner has not indicated that she has reviewed the entire application to understand how applicant provides support for the various features of the claimed invention and then determine whether there is sufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

In response:

Claims 1, 13 and 14

line 6, recites "a high energy beam".

Applicants' specification, pages 1-5, does not mention using a high energy beam in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, there is sufficient written description for a laser treatment or a pulsed electron irradiation as mentioned on page 5, lines 3-4.

line 7, recites "melting".

Applicants' specification, pages 1-5, does not mention melting in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, there is sufficient written description for partially fusing the layer as mention on page 2, line 17; and fusing the layer as mentioned on page 5, line 2. Also, these descriptions have nothing to do with the substrate.

lines 7-9, recites "melting and homogenization of ... a region of the substrate directly below the irradiated near-surface region".

Applicants' specification, pages 1-5, does not mention melting and homogenization of ... a region of the substrate directly below the irradiated near-surface region in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, there is sufficient written description for homogenization of the element distribution as mentioned on page 2, lines 19-20; and homogenization in the near-surface region, the layer being fused, for example at and/or under the surface, as mentioned on page 5, lines 1-2. Also, these descriptions have nothing to do with the substrate.

lines 9-11, recites "without melting and homogenizing a region of the substrate located laterally adjacent the melted and homogenized substrate region".

Applicants' specification, pages 1-5, does not mention without melting and homogenizing a region of the substrate located laterally adjacent the melted and homogenized substrate region in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

The Examiner does not know where this limitation is coming from in the specification.

Claim 15

lines 1-2, recite “wherein the melted substrate is only partially melted in a local region of the irradiation”.

Applicants’ specification, pages 1-5, does not mention wherein the melted substrate is only partially melted in a local region of the irradiation in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, there is sufficient written description for a partially fused layer as mentioned on page 5, line 17. Also, this description has nothing to do with the substrate.

Claim 16

lines 1-2, recite “wherein the near-surface region of the coating layer is scanned over a period of time by the high energy beam”.

Applicants’ specification, pages 1-5, does not mention wherein the near-surface region of the layer is scanned over a period of time by the high energy beam in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

The Examiner does not know where this limitation is coming from in the specification.

Applicants' specification does not convey with reasonably clarity to those skilled in the art the above claim limitations. Thus, they are new matter.

The Examiner has carefully considered the entire specification as originally filed, however, there is found no literal support in the specification for the newly added limitations in amended claims 1 and 13-16. Applicants have not provided the page number and line numbers from the specification as to where the newly added limitations are coming from. *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983) *aff'd mem.* 738 F.2d 453 (Fed. Cir. 1984). Accordingly, the 35 USC 112, 1<sup>st</sup> paragraph, rejection has been maintained.

II. Claims **6-9, 13 and 15** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 6-9, 13 and 15 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment.

### ***Response to Amendment***

#### ***Claim Rejections - 35 USC § 112***

I. Claims **13 and 15** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to



one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 13

line 7, recites “a substrate of the component”.

Applicants' specification, pages 1-5, does not mention a substrate of the component in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, according to page 2, line 7, the substrate *is* a turbine component.

Claim 15

lines 1-3, recite “wherein the melted substrate is only partially melted in a local region of the irradiation that is adjacent to the region of the substrate located directly below the irradiated near-surface region”.

Applicants' specification, pages 1-5, does not mention wherein the melted substrate is only partially melted in a local region of the irradiation that is adjacent to the region of the substrate located directly below the irradiated near-surface region in the method. Thus, there is insufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention as a whole at the time the application was filed.

However, there is sufficient written description for a partially fused layer as

mentioned on page 5, line 17.

Applicants' specification does not convey with reasonably clarity to those skilled in the art the above claim limitations. Thus, they are new matter.

The Examiner has carefully considered the entire specification as originally filed, however, there is found no literal support in the specification for the newly added limitations in amended claims 1 and 13-16. Applicants have not provided the page number and line numbers from the specification as to where the newly added limitations are coming from. *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983) *aff'd mem.* 738 F.2d 453 (Fed. Cir. 1984).

II. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### Claim 15

lines 1-2, "the melted substrate" lacks antecedent basis. Claim 1, line 7-8, recites "**melting** ... **a region** of the substrate ..." (i.e., a melted region).

lines 1-3, it is unclear how the melted substrate is only **partially melted** in a local region of the irradiation that is **adjacent** to the region of the substrate located directly below the irradiated near-surface region when claim 1, lines 9-10, recites "**without**

**melting** and homogenizing a region of the substrate located laterally **adjacent** the melted and homogenized substrate region". "Without melting" means no melting.

***Allowable Subject Matter***

The following is a statement of reasons for the indication of allowable subject matter:

Claims **1-2, 4-12 and 15-18** define over the prior art of record because the prior art does not teach or suggest a method for coating a substrate having at least one hole, comprising the steps of covering, applying and irradiating as presently claimed, esp., the step of irradiating by a high energy beam a near-surface region of the coating layer to improve adhesion of the coating layer to the substrate, and to ensure melting and homogenization of the coating layer and a region of the substrate located directly below the irradiated near-surface region without melting and homogenizing a region of the substrate located laterally adjacent the melted and homogenized substrate region.

Claim **13** defines over the prior art of record because the prior art does not teach or suggest a method for coating a turbine component having at least one hole, comprising the steps of covering, applying and irradiating as presently claimed, esp., the step of irradiating by a high energy beam a near-surface region of the coating layer to improve adhesion of the coating layer to a substrate of the component, and to ensure melting and homogenization of the coating layer and a region of the substrate located directly below the irradiated near-surface region without melting and homogenizing a

region of the substrate located laterally adjacent the melted and homogenized substrate region.

Claim 14 defines over the prior art of record because the prior art does not teach or suggest a method for recoating a substrate, which has already been used and having at least one hole, comprising the steps of covering, applying and irradiating as presently claimed, esp., the step of irradiating by a high energy beam a near-surface region of the coating layer to improve adhesion of the coating layer to the substrate, and to ensure melting and homogenization of the coating layer and a region of the substrate located directly below the irradiated near-surface region without melting and homogenizing a region of the substrate located laterally adjacent the melted and homogenized substrate region.

The prior art does not contain any language that teaches or suggests the above. *JP 1-100302* does not teach without melting and homogenizing a region of the substrate located laterally adjacent the melted and homogenized substrate region. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

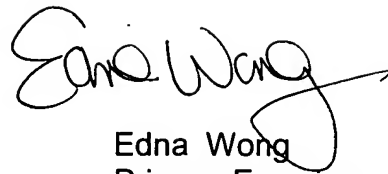
Claims 1-2 and 4-18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> paragraph, set forth in this Office action.

Claim 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Edna Wong", with a long horizontal stroke extending to the right.

Edna Wong  
Primary Examiner  
Art Unit 1753

EW  
April 4, 2007